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The Effects of Music Medicine on Reducing Distress, Anxiety, and Pain During Bone Marrow Biopsy Procedures

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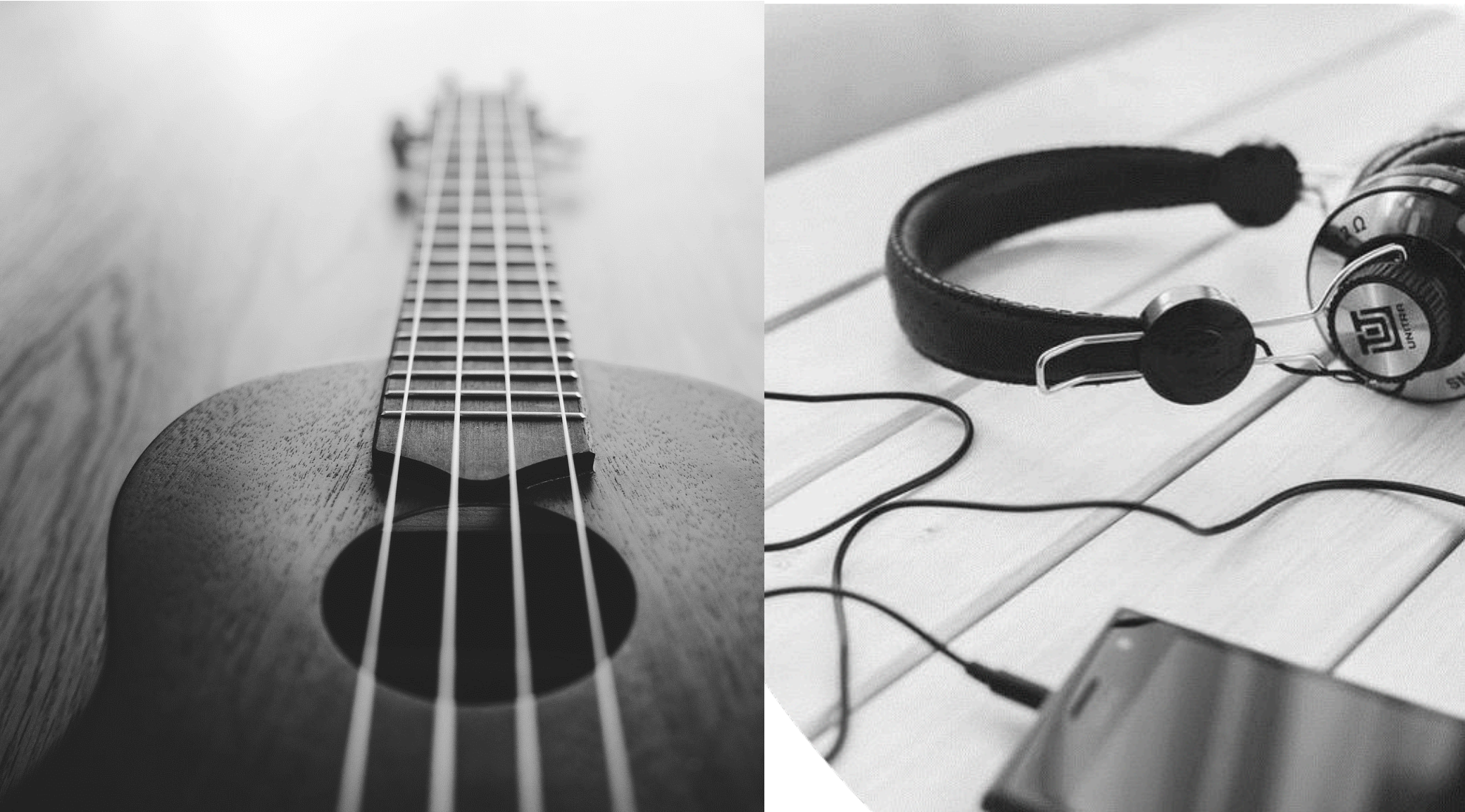


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The Effects of Music Medicine on Reducing Distress, Anxiety, and Pain During Bone Marrow Biopsy Procedures

BACKGROUND

- Patients request sedatives for minor procedures to help reduce distress, anxiety, and pain
- Sedatives increase patient risk and overall cost of care
- There are limited non-pharmacological interventions offered to patients



PURPOSE

- Hematology/Oncology patients often experience distress, anxiety, and/or pain during Bone Marrow Biopsies (BMB)
- Explore the effects of non-pharmacological interventions during BMB
- Determine if the use of music medicine intervention will moderate distress, anxiety, and/or pain during the BMB procedure

1. Rossetti, A., Chadha, M., Lucido, D., Hylton, D., Loewy, J., & Harrison, L. (2014). The Impact of Music Therapy on Anxiety and Distress in Patients Undergoing Simulation for Radiation Therapy (RT). *International Journal of Radiation Oncology*Biophysics*, 90(1). doi: 10.1016/j.ijrobp.2014.05.2074

2. Shabanloei, R., Golchin, M., Esfahani, A., Dolatkah, R., & Rasoullan, M. (2010). Effects of Music Therapy on Pain and Anxiety in Patients Undergoing Bone Marrow Biopsy and Aspiration. *AORN Journal*, 91(6), 746–751. doi: 10.1016/j.aorn.2010.04.001

3. Zengin, S., Kabul, S., Al, B., Sarcan, E., Dogan, M., & Yildirim, C. (2013). Effects of music therapy on pain and anxiety in patients undergoing port catheter placement procedure. *Complementary Therapies in Medicine*, 21(6), 689–696. doi: 10.1016/j.ctim.2013.08.017

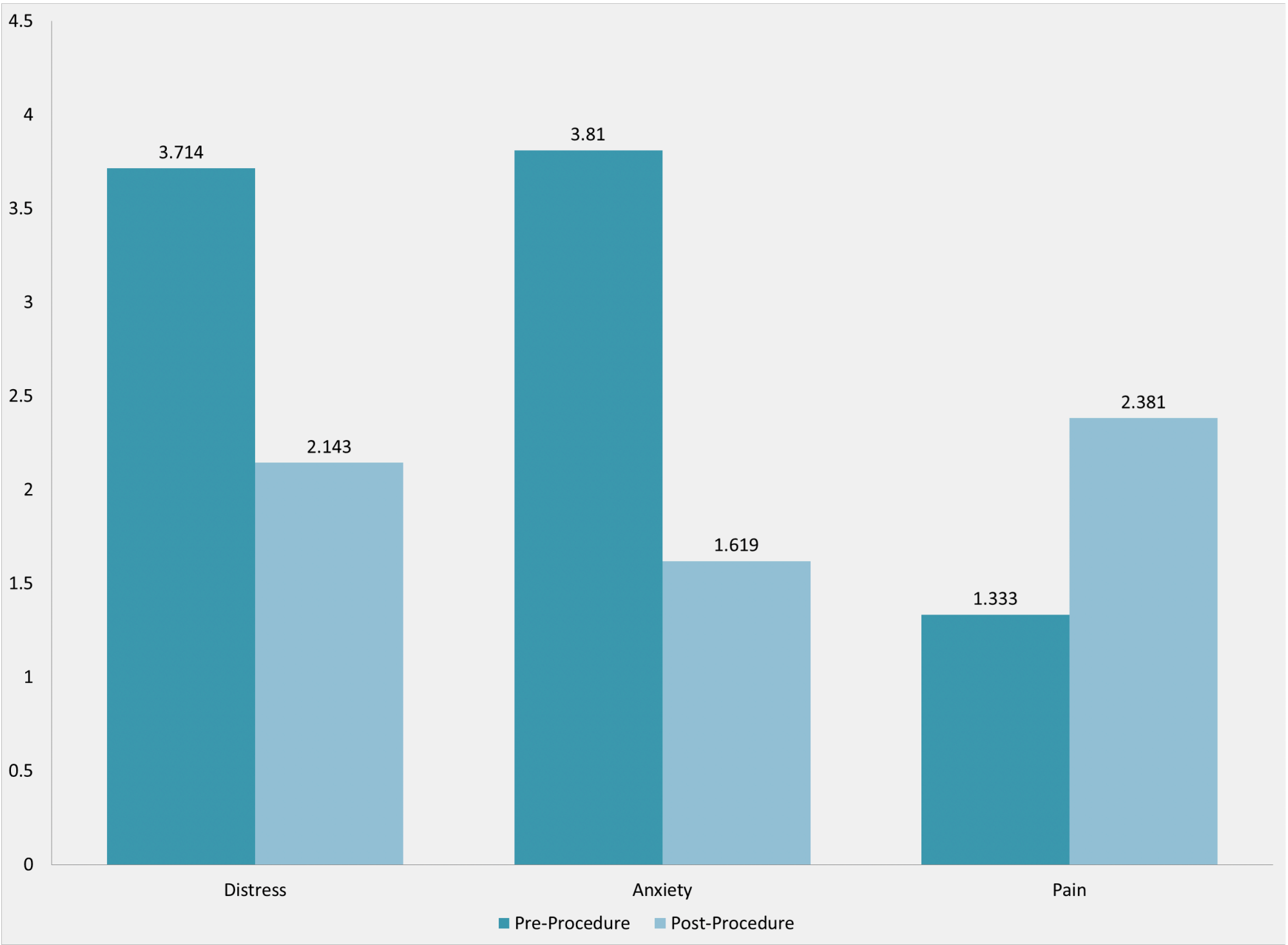
METHODS

Feasibility Study | 61 participants, 21 completed surveys

- Patients were provided a clinic iPad with pre-recorded music tracks composed by a Music Therapist Board Certified (MT-BC) designed to regulate physiologic response
- Participants self-selected desired music track prior to procedure to allow time to entrain to the music
- The music played throughout the procedure
- Participants were asked to complete a survey using a 0-10 rating scale to collect pre/post procedure data

RESULTS AND OUTCOMES

A significant decrease in the numeric rating scale was demonstrated in the distress and anxiety scores



RESULTS AND OUTCOMES

- 57% of participants experienced a decrease in distress
- 71% of participants experienced a decrease in anxiety
- 19% of participants experienced a decrease in pain
- 76% of participants indicated that listening to the provided music impacted their procedure
- 91% of participants indicated that it is important to them that SCI offers alternative methods to help reduce distress, anxiety, and pain
- 91% of participants indicated that they would be willing to use the intervention again

CONCLUSION/DISCUSSION

- Non- pharmacological interventions in the form of music medicine significantly decreased patient distress and anxiety during the Bone Marrow Biopsy

PRACTICE IMPLICATIONS AND FURTHER RESEARCH

- The findings in this study indicate that additional funding and research for non-pharmacological interventions would benefit patients and medical facilities by reducing cost of care and procedural risk
- Additional research on the effects of music medicine and other non-pharmacological interventions during medical procedures may improve patient outcomes
- Additional research collecting data from a control and experimental group may enhance study validity